

## PHYSICIANS AND QUACKS.

Huc, the traveller, relates that when a Lama physician happens to be without a particular drug, he is by no means disconcerted; he writes the names of the remedies on pieces of paper, which he moistens with saliva, and then rolls them up into pills. The patient tosses them down, in perfect reliance on their medicinal virtue. To swallow the name of a remedy, and to swallow the remedy itself, say the Tartars, is one and the same thing. Satirists in Europe would unanimously assent to this proposition. And yet these very satirists, after contemptuously ridiculing the ignorance and humbug of medical men, no sooner fall ill, than they resign themselves with abject submission to the prescriptions of their butts. Nay, it has been observed that those whose scorn of the Faculty is loudest, are frequently the most credulous of the pretensions of a Quack. Nor is the reason of the general reliance upon Quacks difficult to discover. The Physician is supposed to be guided by Theory; the Quack is supposed to be guided by Experience. And such is the defective training of all but exceptional minds, that there is a very general and ineradicable distrust of Theory, as if it were something aloof from experience; and a reliance upon Experience as if it were free from theory.

Yet a very slight examination will discover that the Quack is not only guided by some theory, but is far more the slave of Theory than the Physician is. When he pretends to rely only on Experience, in vaunting the cures he can effect, and the cures he has effected, the fact is that he has not one single real experience to justify his boast. In saying this we are not simply alluding to the excessive difficulty of securing a genuine experience, owing to the great complexity of the organism and of the influences

which act upon it; we allude to the undeniable fact that the Quack does not even *attempt* to secure an experience. His stock in trade is a Panacea. He has a Pill, or a Lotion, or a Manipulation, which cures most, if not all diseases. He proclaims with emphasis some absurd proposition, some theory, which is meant to justify his practice. Thus, for example, he affirms that "all diseases are owing to impurity of the blood," and his panacea purifies the blood; or that "all diseases are due to a deficiency of the nervo-electric force," and his treatment will "restore" that force. These bold theoretic assertions are supported by an ostentatious list of cures. Jones was suffering from lumbago; he took the pills, and is now in health. Brown was dyspeptic; he swallowed the mixture freely, and is now recovered. Robinson was a martyr to the gout; he followed the treatment, and is "better than ever he was in his life." Such cases are multiplied and paraded. They may be authentic, or they may be fictions; but let us assume them to be genuine, and a moment's consideration will show that they are *no* evidence of any causal connection between the action of the drug and the recovery of health. Nay, more, except in the mere coincidence, no attempt is made to show such a causal connection.

When the public is authoritatively told that all diseases originate in the blood, it accepts the statement as if it were a first truth. Few suspect it to be a theory, and a preposterous one. Few think of inquiring of physiologists and pathologists—*i. e.* men who have specially studied the organism in health and disease, and who, whatever their ignorance, must at least know more of such subjects than men who have never studied them at all. Yet surely the first step should be



to ascertain, if possible, whether known facts justify the theory of impure blood being the origin of disease. Having come to an understanding on this point, a second step is necessary. When the impurity of the blood has been proved to be the origin of disease, there will come the necessity of proving that the drug, or treatment in question, *does* purify the blood as asserted. *After* this proof has been given, the cures which have followed the employment of the panacea will form rational evidence of the causal connection. But to accept an hypothesis as to the cause of disease, and then to accept an imaginary remedy, without attempting to verify either the truth of the hypothesis, or the action of the remedy, is a curious, and, unhappily, a too frequent illustration of the fallacy of "relying on experience" without ascertaining whether what we rely on *is* the experience it pretends to be.

It is but too evident that the causes of disease are numerous and complex. A man may "destroy his digestion" by excessive brain-work, by overfeeding, by underfeeding, by abuse of alcohol, by licentious habits, &c. The treatment which ignored these several causes and their organic consequences, and which pretended by a panacea to "restore the digestive vigour," might seem to the Quack, and to his dupe, a hopeful effort, but it must make all rational minds seriously indignant. "Digestive pills" sound full of promise; and the hope of "restoring tone to the stomach" will be very alluring to people who have not the slightest knowledge of the stomach, who can form no definite idea of what its "tone" may be, nor on what its "vigour" depends, and who have never attempted to explain how this tone is to be restored by the pill. *If* the stomach has lost its tone, and *if* the disease depends on that loss, and *if* the pill will restore that tone, then indeed we may accept the Quack as a benefactor; but

until he has at least *attempted* to settle these questions, we must pronounce him an impostor. He is cheating us with words, as the Lama physician cheats his patients.

All who have even a glimmering of positive knowledge respecting the organism, and who know upon what a multiplicity of concurrent causes digestion depends, will pardon the physician, if, with all his skill and stored-up experience, he fails in re-establishing the disturbed equilibrium, and fails in bringing back the "lost vigour." But this pardon should not be extended to the impudent charlatan, who, disregarding all these difficulties, pretends that the case is as simple as A, B, C. In these days it is unpardonable in him to be so wholly ignorant of his ignorance. He must know that he has never studied the organism; he must know that he has never put one of his hypotheses to the test; he must know that he is trading on the ignorant credulity of the public. There was a time when such charlatanism was excusable. All men were ignorant, and the Quack was perhaps less dangerously so than the Physician, because he did not mistake his ignorance for knowledge. It is otherwise now; and although on many grounds it is not desirable that the Legislature should interfere, it is certainly desirable that Public Opinion should energetically brand, and the Press unceasingly expose, every attempt to trade on credulity. Why have we so many journals which are vigilant of moral and intellectual health, and none to bestow a thought on bodily health? Why are bad poets and shallow philosophers mercilessly criticised by a hundred pens, and trash, ten times more injurious in the shape of medical doctrines and quack pretensions, left to the contemptuous silence of the well-informed, and an occasional sneer in one or two medical journals?

Experience is difficult in medicine, and has almost always to be interpreted by Theory. The only cases



in which it is simply relied on are those in which *specifics* are employed whose action is obscure. Quinine, for example, is known as a specific for ague. Its mode of action is by no means clear; but experience tells us that its effects are constant, immediate, and greatly superior to those of any other medicament. Naturally it will be employed in all cases which *resemble* ague in their chief characteristics; but this is done cautiously, vigilantly, and continued only in as far as experience of its effects seems to point out a constancy of action. Let a man employ quinine as a panacea, instead of a specific—that is to say, let him give it as a cure for all, or many diseases, besides ague—and he becomes a Quack. He does not “rely on experience,” but on theory; he generalises from one disease to all diseases; he quits the ground of *experience* for that of *supposition*, or of impudent assertion. Whereas the Physician, far less the slave of theory, trusts more to experience by employing quinine only in such cases as are warranted by observation and experiment. He, too, must often grope in the dark; must often employ the remedy in ignorance of what its effects *will be*; but he is vigilant to note what its effects *are*, and on perceiving ill success, can resort to other remedies. Not so the Quack. He has but one arrow in his quiver, and with it he cures or kills.

It is obvious that in drawing these sharp distinctions, we are considering types, not individuals; we take the Physician and the Quack, each according to his own professed standard. In practice it is but too evident that the Physician not unfrequently acts with a recklessness and confident ignorance which bring him within the range of the batteries opened against the Quack. He, too, cheats himself and us, with words. He relies on baseless hypotheses; and prescribes remedies which are to act on metaphysical entities. He is glib about “vital forces,” “tone,” “electricity,” and

many other words which veil ignorance. He assumes an acid condition of the blood, and prescribes for it, without once attempting to ascertain whether there ever *is*, in health or disease, any free acid in the blood. But in saying this, we are only saying that Medicine is still in a very imperfect condition; and that its professors must reflect that condition.

It would be easy to collect a small volume of telling citations to prove the preposterous opinions which have at various times determined the practice of medicine, and which rival the absurdities of the boldest quacks. But as this would perhaps be considered unfair by the Faculty, we will select one specimen only, and it shall be from the writings of their pride and glory, Sydenham; a wiser physician, considering the state of science in his day, could not be named. Yet he says, speaking of acute and chronic rheumatism—“Both sorts of rheumatism arise from inflammation. No one doubts the inflammatory nature of pleurisy, and the blood of rheumatism is as like the blood of pleurisy as one egg is like another. Hence the cure is to be blood-letting.” Had Sydenham, or any one else, ever attempted by accurate tests to ascertain whether this supposed resemblance of the two bloods was *peculiar* to these two diseases? No. The blood of a gouty, of a consumptive, of a rheumatic, of a bilious, of a dyspeptic, of a neuralgic patient is one and the same blood; one egg is not more like another than the blood of each of these is like the blood of another; are they, *therefore*, to be treated in the same way? But this is a trifle compared with the logic which concludes that “*hence* the cure is to be sought in blood-letting.” Why, he shall tell us in his own candid style. “Respecting the cure of rheumatism,” he writes to Dr Brady, “*I, like yourself, have lamented that it cannot be cured without great and repeated losses of blood.* This weakens the patient at the time; and if he has been previously



weak, makes him *more liable to other diseases* for some years. Then the *matter that created the rheumatism* falls upon the lungs, in case the patient take cold, or from any other slight cause. By this the latent disposition exhibits itself in act and deed." What proof does he offer that without blood-letting the disease *cannot* be cured? It is mere reliance on medical dogmas. However, he ventured to *try* the effect of doing without it; he succeeded; but he had to bear the brunt of medical sarcasm for his innovation. Before leaving this case, let us call attention to the hypothesis which is implied respecting the "matter of rheumatism" which is to "fall upon the lungs." It might take its place in a quack advertisement of our day.

We need not pause to prove our assertion, that for many centuries there was as much impudent assertion, humbug, and ignorance, to be found in the Faculty, as may now be found in the Quack advertisements. In point of absurdity, of confident reliance upon wild conjecture and coincidences, it would be difficult to surpass many celebrated medical dogmas; nor have the Dulcamaras of provincial fairs treated the organism with more terrible recklessness than have the physicians of courts and cities. But there has been progress, and the art of medicine has kept pace with the progress of science. Many and bitter as have been the sarcasms and denunciations against medical ignorance and treatment, perhaps the most virulent attacks have issued from the body of the profession itself. It is a jealous body, and an honest body; both the jealousy and the honesty have prevented the perpetuity of error. Current dogmas have been eagerly criticised; fashionable treatments have been proved discrepant with existing knowledge. New lights from science have illuminated what was before obscure. And by dint of the perpetual insurgency of the sceptical spirit, the art and practice of Medi-

cine have slowly advanced. Nay, in this general advance, even Quacks have been useful. They have kept alive the spirit of scepticism; by the vehemence of their coarse attacks on the science of their day, they have shaken the too absolute dominion of the schools. Still more beneficial have been the various one-sided Systems, too often unjustly denounced as Quackeries by the Faculty,—such as Homœopathy, Hydropathy, Kinesopathy—which have impressed a twofold modification on the practice of Medicine: first a lessening of the recklessness of "Heroic medicine" (as it was styled), and secondly, a greater advance towards a true *physiological* medicine, by the increased attention to regimen.

So far has this last named modification gone, that many men, and those men of repute, have been brought to doubt whether, after all, Regimen is not the only true Physician. Do we *need* medical aid, from Quack or Faculty? Might not Nature be intrusted with the whole cure? Such questions have at all times pressed themselves on the minds of men, in moments of despair at witnessing the discordances in medical doctrine, and the incompetences of medical practice. The idea of relying implicitly on Nature has two supporting pillars—a pillar of philosophy, and a pillar of fact. It will not be impossible to show that both these pillars rest on shifting foundations. The philosophical one is a personification of Nature as a potent Intelligence, who only acts for our good, and knowing best what is best to be done, will do it, if not thwarted. The answer to this is, that such a personification is inadmissible; and that if Nature is to be invoked at all, she must be invoked as the cause of the very Evil which we now propose to leave to her cure. If Nature, by one of her pestiferous vapours, gives man a fever, she may, and often does, destroy instead of curing him. A reliance on such metaphysical abstractions, therefore, will not be



prudent. But there is another pillar we have to examine, and it is one of *fact*—namely, that many accidents and diseases *are* got rid of without medical aid, by the gradual *reparative processes of growth*: the wound heals, the disturbance subsides, the normal activity of the organs is regained. There is no doubt of this fact. It is as certain as that a “bad debt,” and the danger it for a time may have threatened to the credit of a firm, will be “wiped off” and the balance restored by the slow accumulation of profits. On this fact mainly reposes the idea of a *vis medicatrix naturæ*. But its foundation is a shifting one. Just as there are “bad debts” which involve bankruptcies, unless some immediate external aid be secured, so are there accidents and diseases which cause a disturbance too great for Nature’s normal rate of cure. There is no *vis medicatrix commercii* to save from bankruptcy. And there are diseases which must be arrested at once, or they will destroy the organism before the *medicatrix naturæ* has time to act.\* Who would leave a ruptured artery to Nature? Unless the artery be tied, the very action of Nature will be destructive. Nature will not set a dislocated limb, nor eject a cancer. An inflamed lung, a congested brain, an arrested secretion, cannot always with safety be left to Nature. But in surgical cases it is much easier to know what precisely is the evil and what the remedy than in medical cases, and consequently there is less disputation in surgery than in medicine. A dislocated limb must be set; but a congested brain, how shall that be treated? It may arise from weakness of the vessels, and how to strengthen them is a difficult question to be answered in twenty different ways by twenty doctors. One bleeds, another feeds high, a third feeds low, a fourth employs a tonic, a fifth an altera-

tive. Who is right? and who shall decide?

For ourselves, who, not being medical, have no right to take any side, and must merely view the whole subject from a distant philosophical and physiological station, we are quite clear that whatever part Regimen and “Nature” be allowed to play, there must always be an immense part for medical skill. In what will this mainly consist? Why, chiefly in accurately determining “what is the matter with the patient.” This may seem an easy thing. It is the main difficulty of the Art. It is the guide of practice. The facility with which your ordinary acquaintance will make up their minds as to “what is the matter with you,” on hearing one or two particulars related, is only equalled by their facility in prescribing for you a course of treatment which cured them, or their relative, of “precisely the same thing.” The wise physician knows that the whole mystery of Medicine lies just here—in correctly discerning what *are* the indications of a particular malady, and in correctly discriminating what are the direct effects of certain remedies.

Experience must necessarily be the guide; but the difficulty is to light upon real experience. Suppose the physician has rightly discerned the nature of a malady, he has then to choose a remedy which has on former *similar* occasions been found beneficial. It is the *only* guide he has, and yet he cannot trust implicitly to it, for he knows that the remedy which in one case was found eminently beneficial, in another, *apparently* similar, case was a hopeless failure. Much depends on the peculiarities of the individual organism; much on its condition. Some drugs are potent in one organism, and impotent in another. Over and above this source of error, there is the principal difficulty of deciding whether the bene-

\* There is a good passage on this subject in VAN HELMONT, *Catarrhi Deliramenta*, but too long for quotation. See *Opera Omnia*, fol., p. 266.



ficial effect attributed to any particular drug really had any reference to the action of that drug, or to some concurrent action ; and when we read the lists of cures effected by directly *opposite* methods, by medicaments having a directly opposite effect on the organism, we cannot withhold the suspicion that this is a constant source of fallacy. The main guide must be a reliance on empirical observation until certainty is secured on a scientific basis. If a treatment is found beneficial in a large number of cases, there is a *presumption* in its favour. It may be *tried* in each new similar case. And here it is that the Physician and the Quack, seemingly on common ground, are most decisively separated. Both rely on empirical observation ; both are guided by the results of previous cases ; both are ignorant of the real order and succession of the phenomena arising out of the administration of the drug. But the confidence of the Physician is relative and tentative ; the confidence of the Quack is absolute and final. The Physician watches the result of his trial, and in case of ill success, tries a different course ; he relies on past experience only as on a presumption, and gives it up on proof of error. The Quack never doubts, never watches.

Until a perfect Science of Life has been elaborated by physiologists, there can be nothing more than an enlightened empiricism in Medicine. The Physician is an enlightened empiric ; and it is only thus that he is distinguished from the Quack. Accordingly, as we glance back at the early periods in the history of Medicine, we see this mark of distinction becoming fainter and fainter ; and as we look at the various quarrels of the Faculty with heterodox systems, such as Homœopathy or Hydropathy, we learn that they are really disputes as to matters of *doctrine*, and should be conducted as such. The tone adopted by the Faculty towards such systems is unworthy and unwarrantable. To designate these systems as quack-

eries is preposterous. They may be one-sided ; they may be absurd ; but is orthodox medicine in any condition to warrant unhesitating allegiance to its doctrines ? The Homœopath and the Hydropath have their theories of the laws of healthy and diseased action, and of the effect of their remedial methods ; these theories may be absurd ; let it be granted that they are so ; they have the same legitimacy as the theories of the Faculty, which may also be absurd, and which many serious inquirers believe to be so. Let all serious doctrines receive earnest discussion, and let the practice of flinging “atheist” and “quack” at every man who ventures to think differently from the “gowned doctors” be left to those who have bad temper and worse logic. If it is unjust to stigmatise the Physician because he is ignorant and incompetent, the existing state of knowledge leaving him no other alternative—if we respect him and reward him because he does his best, and acts according to the lights given him—not less unjust is it to stigmatise the Homœopath or Hydropath because he also is ignorant and incompetent. The real question in each case is, Has he any conviction guiding him ? is his practice founded upon real study ? or does he *know* that he is an impostor ?

We have been led into these remarks by the recent publication of two Histories of Medicine—one by a Physician, the other by a Homœopath—both of which afford ample proof of the very slow growth which even the present small amount of medical certainty has had. Indeed, in one aspect, the history of Medicine is a chapter out of the long history of superstition ; in another aspect it is a chapter in the history of science. By it all conceivable follies are illustrated ; in it the premature attempts and slow conquests of inductive science are reflected. Is this chapter ended ? Far from it. Certainty is almost as distant now as it was in the days of Hippocrates. Medicine is an Art



founded on a Science, yet unable to await the tardy conclusions of science. The sick man must be cured at once; *he* cannot wait till Physiology has acquired certainty, and Pathology has given a positive direction to the remedial art; he must therefore be treated according to the best lights at hand. These may be mere will-o'-wisps, the flickering flames of superstition, yet even these he prefers to darkness.

The History of Medicine is still to be written. Sprengel's learned work, from which every one pillages, has had no adequate successor. Isensee's *Geschichte der Medicin* is of great value as a bibliography; but it is no more. Wunderlich's *Geschichte der Medicin* is brief and dry. Renouard's *Histoire de la Médecine* is a work of no erudition, but is agreeably written, and has a polemical purpose running through it which gives it animation. The same may be said of Dr Russell's work,\* to which reference was made just now. It is as entertaining a survey as could be desired, and although written by a Homœopath, who, of course, makes all the heroes of medicine lead up to Hahnemann, yet the theoretical bias has not materially affected the exposition; and every author must have *some* bias. Dr Russell does not exhibit much first-hand knowledge of the several writers whose biographies he narrates, and whose doctrines he expounds; nor does he seem extensively acquainted with the literature of his subject. But although a compilation, his book is a succinct and popular compilation, and the material has been rearranged by him. Careful readers will note that there is not only a deficiency of research, but a deficiency of criticism even of the materials employed. We will specify but two examples. He repeats, on the authority of others, a statement which the least cautious of critics might have sus-

pected—namely, when speaking of Haller's prodigious activity, he says, "In Göttingen he pursued his career of almost superhuman activity, writing light reviews incessantly, to the total amount, it is said, of 12,000; publishing occasionally such works as the *Life of Alfred*, showing great study of a remote and difficult period; so that any one living in the literary world alone would naturally have supposed that this Haller was nothing but a *littérateur*, and one unusually busy and productive; whereas the fact was, that these efforts, which would have exhausted ordinary men, were to him only relaxation from his real work, which consisted in profound and original researches in anatomy and physiology." That Haller's activity was immense, both in literature and science, his published works amply prove; but if Dr Russell will calculate how long it would take to write 12,000 reviews, and compare it with the time Haller remained at Göttingen, he will find that in those sixteen years Haller must, *every* day, have written two reviews, besides all his other work of writing, dissecting, experimenting, and lecturing,—a calculation which at once points to some gross exaggeration.

Little less uncritical is his reproduction of the traditional statements about the treatment received by Harvey and Jenner. As we have already had occasion to state the real evidence on these points, it is unnecessary to reopen it.† We will merely add, that according to the evidence brought forward by Dr Russell, Jenner had only three months to endure neglect. These three months were doubtless very trying to his patience; but a historian might have taken a more impartial view of the trial. Dr Russell asks how it happened that, "among all the physicians and surgeons in London, *none* was found of

\* *The History and Heroes of Medicine*. By J. RUTHERFORD RUSSELL, M.D. John Murray. 1861.

† *Maga*, November: "How the World treats Discoverers."



zeal and enterprise sufficient to put Jenner's method to the test?" How it *might* have happened is easy of explanation; but Dr Russell himself, in the very next paragraph, informs us that it *did not* so happen, for "the celebrated surgeon, Mr Cline," showed this zeal and enterprise, and not only put the method to the test, but wrote to Jenner to come at once to London and make ten thousand a-year.

Apropos of Harvey, we must enter a protest against Dr Russell's supposition, that he was one of the intellectual children of Bacon. So far from "the influence of the greatest English philosopher being traceable upon the greatest English physiologist," we think it would be difficult to point out any trace whatever. The mind of Harvey seems to us too distinctively opposed to that of Bacon for such an influence to have operated; and the history of Harvey's studies entirely refutes the idea. It should also be remembered that Harvey's discovery was made four years before the *Novum Organum* appeared. It is true that Dr Russell seems to think Harvey's greatness consists less in the discovery of the circulation than in the lesson of noble independence he gave the world—an independence which, while following truth at all hazards, was accompanied by profound respect for the authority of his teachers. We cannot recognise this feeling of respect in Bacon; nor can we agree with Dr Russell that the discovery of the circulation was knocking at the door of human intelligence, and must very soon have gained admittance, if Harvey had never been born. To hear that knocking, *another* Harvey would have been needed. Laplace has shown how completely Newton's great discovery was prepared by previous discoveries, but how it

required the mind of a Newton to unite them into a consistent whole.\*

As it is not our purpose to criticise Dr Russell's book, we shall not pursue our remarks on his agreeable and accessible survey of the chief episodes in the history of Medicine, merely remarking that so handsome a volume is *maculated*, not illustrated, by the woodcuts which represent the effigies of the heroes.

We turn to the rival volume of Dr Meryon.† It is a contrast, in many respects. It is more elaborate in aim, and more elaborated in matter: the first volume, which is all that has appeared, brings the history down to the sixteenth century. But the Physician has no chance beside the Homœopath. If Dr Meryon is more erudite and laborious than Dr Russell, he is far less acute, far less gifted as a writer. The mere title, which we have transcribed at full, will indicate to every critical eye that Dr Meryon has no very keen sense of the value of language; and to every philosophical eye that he has no very accurate acquaintance with philosophy, since he can class medicine as a *science*. But as one must never judge finally from mere appearances, and still less condemn a book on account of its title, let us take a specimen of Dr Meryon's historical judgment, there where, not being tied by tradition, he might be supposed to be more circumspect, and where, materials being abundant and accessible, he might be supposed to be well informed: speaking of Gregory the Great, he says—

"A most remarkable passage occurs in the writings of Gregory, which is probably the earliest, and certainly the most unequivocal, enunciation of one great dogma of the system of homœo-

\* LAPLACE: *Exposition du Système du Monde*. Sixth Edition. Vol. ii. p. 456, 470.

† *The History of Medicine: comprising a narrative of its progress from the earliest ages to the present time, and of the delusions incidental to its advance from empiricism to the dignity of a science*. By EDWARD MERYON, M.D. Vol. I. Longman & Co. 1861.



pathy, and strikingly accords with another propounded by a Saracenic writer, which we shall have to refer to, as tending to confirm the notion that that system was practised at this early period (!) It runs thus, 'Mos medicinæ est ut aliquando similia similibus, aliquando contraria contrariis curet. Nam sæpe calida calidis, frigida frigidis, sæpe autem frigida calidis, calida frigidis sanare consuevit.' The identity of words renders it impossible to read the above paragraph without a suspicion that an old and obsolete tenet may have been reproduced to the world under the garb of a new discovery; but if it be not *absolutely* true that human nature is destined to renew its acquaintance from time to time with exploded doctrines, just as we renew our acquaintance with bygone diseases, it is an apt illustration of the proverb advanced by an authority far more unerring than we can pretend to, that 'there is nothing new under the sun.'"

It would be a pity to spoil the delicious effect of this passage by adding others to it, and we may leave the reader to form his estimate of Dr Meryon's capacity as a philosophic writer from this one sample.

We said that the History of Medicine is still to be written; and we fear there is but little probability of any one having the requisite erudition united to the requisite power. A more interesting subject it would be difficult to select. Up to the period of the fall of Troy the art was practised by princes, warriors, maidens, and, of course, old women. Those were early days, and human employments had not become "differentiated;" later on the "medicine man" became absorbed by the Priest, who, when he undertook to explain all phenomena as the will of the gods, of course took in the phenomena of disease. What chance had the simple prescription of ordinary men, who could only boast a small experience, compared with the power of the gods? Much has been written about the hereditary caste of Asclepiads, but as very little is known, we need not dwell on them. This, however, is known, that they neglected Anatomy and Dietetics, and were copious in invocations and

supernatural explanations. When philosophy, gradually emancipated from the trammels of superstition, began to explain all phenomena as well as it could by the aid of reason and observation, the phenomena of disease could not escape it, and the philosophers became physicians; very bad physicians, it must be confessed they became; but it was a great step for Medicine when a spirit of actual inquiry was roused, and when, instead of thwarting all research, by attributing every disease to the will of the gods, an attempt was made to detect the proximate causes.

Thus with Pythagoras began a new era—the era of Inquiry. If the want of a true conception of scientific Method, and, above all, the want of those Directive Maxims which make science progressive, prevented the philosophers from accomplishing much more than the substitution of metaphysical for theological explanations, there was at least a new path opened, and it soon became crowded with seekers. The structure and functions of the organism were studied; and the laws of health and disease were deduced. Absurd as these deductions were for the most part, they were such as may be met with in all the early efforts at scientific explanation. Slow and cautious induction could only come into favour after facile and misleading deduction had been tried and found wanting. There was too little actually known respecting organs and functions, to keep the impatient mind of man restricted to their study. Alluring speculations on the first and final causes called away the attention. The philosophers held it impossible "that any one should know how to cure a disease if he be ignorant of the causes whence they proceed." This, as Dr Russell remarks, was a very plausible proposition. "But what are we to understand by the causes of disease? If all that is meant be the external circumstances which induce unhealthy conditions of the human body, then the state-



ment is incontrovertible : it is true the ague would never have been got rid of by draining the pestiferous marsh, unless it had been known that swamps produce disease. But the dogmatist went a step further ; not only could he say that ague is caused by swamp, but it is caused by the swamp increasing, to a mischievous extent, the radical moisture of the body ; and it must be cured by opposing to it some remedy which shall increase the radical dryness or heat." Here, like the modern quack, he proceeds to prescribe on the faith of an unverified hypothesis. No attempt is made to prove the increase of moisture, no attempt is made to show that an increase of dryness will cure the ague. How wildly and absurdly philosophers could confidently speculate in the absence of all attempt at proof, may be seen by opening Aristotle's important, but little-studied, work, *De Partibus Animalium*, which contains an exposition of the anatomy and physiology of his day. For example, it is stated as a fact about which there can be no doubt, that the blood in the upper part of the body is better than that in the lower, the reason assigned being that the upper is the nobler part. "Thick and warm blood," he says, "is better adapted for plastic purposes ; thin and cold blood, better for sensation and thought. Hence, the bees and other such animals are more intelligent (*φρονιμώτερα*) than many red-blooded animals ; and of the red-blooded, those are the most intelligent which have the thinnest and coldest blood. But the best of all are those which have warm, thin, and pure blood : they are distinguished by fortitude (*ἀνδρείαν*) and intelligence. Hence, the upper and lower parts—the right and left sides—male and female—manifest their relative differences." \* Elsewhere he says, man, of all animals, has the most hair on his head : "this is necessary because of the humidity

of the brain and the sutures of the skull : for growth must be greatest where there is greatest warmth and moisture."† We have heard of a provincial hairdresser in our own time who held the same view, declaring that "the brain percolates through the skull, and nourishes the roots of the 'air, sir !'" One more example, and we have done. The heart, says Aristotle, is placed in the centre *because* "Nature is wont to seat the noblest in the noblest place, *unless any stronger reason prevails* (*οὐ μὴ τι κωλύει μείζον*)."‡ And he refutes the opinion of those who assert that the origin of the veins is in the head on this ground : "They thus make the origin manifold and separate, and *moreover in a cold place*, whereas, the region of the heart is warm."

These are specimens of the way the master-mind of antiquity could explain anatomical and physiological phenomena ; how lesser minds would succeed may be easily imagined. "Ils substituèrent des hypothèses transcendantes," says Renouard, "aux résultats simples de l'observation, et crurent avoir élevé l'édifice de la médecine sur un fondement inébranlable, parcequ'ils l'avaient établi sur des bases inaccessibles à l'appréciation des sens, et partant, disaient-ils, à l'abri de leurs illusions, de leur instabilité."§ The reign of the metaphysicians is not quite over yet. There still remain many of the old metaphysical entities, and many of the metaphysical explanations ; but since the middle of the seventeenth century, when Science began to justify by the splendour of its discoveries the illimitable potency of its method, there has been an ever accelerating increase of observation and induction replacing the precipitancy of deduction. It was indeed time for a change. The old method had had its trial ; and the consequences were increase of darkness instead of increase of light.

\* ARISTOTLE, *De Part.*, ii. 2.

† Ibid., ii. 14.

‡ Ibid., iii. 4.

§ RENOARD, *Hist. de la Médecine*, ii. p. 86.



The History of Medicine under the dominion of the philosophers is a marvel of human folly. Nothing seemed too preposterous for the acutest intellects to believe. Let us glance at one of the most distinguished of what may be called the new school, as opposed to the Aristotelians and Galenists; we mean Van Helmont (of whom Dr Russell, by the way, knows nothing but at second-hand, and whom consequently he very imperfectly presents). Here was a man of genius, who had passionately studied Greek and Arabian authors, and whose learning and acuteness made him the wonder of his age; yet he could gravely affirm that in cases of dropsy, gout, or jaundice, "by including the warm blood of the patient in the shell and white of an egg, exposed to a gentle heat, and given to a hungry dog or swine with a bait of meat, the disease will instantly leave the patient and pass to the dog or swine." \* Again, he amusingly says, "Doe you desire to be informed why the blood of a Bull is poisonous, but that of an Oxe, though brother to the Bull, is safe and harmlesse? The reason thus: the Bull at the time of slaughter is full of secret reluctance and vindictive murmurs, and firmly impresses upon his owne blood a character and potent signature of revenge. But if it chance that an Oxe brought to the slaughter fall not at one stroke of the axe, but grow enraged and furious and continue long in that violent madness: then he leaves a depraved and unwholesome tincture on his flesh unless he be first recalmed and pacified by darknesse and famine. A Bull therefore dies with a higher flame of revenge above him than any other animal whatever." †

The influence of philosophers was pernicious in another direction. By the despotic sway which they exercised over the respect of men, as the possessors of the highest wis-

dom, they created the superstition of learning. A "learned physician," even in our own day, does not mean a man who has profoundly studied disease at the bedside, but a man whose memory is stored with the august trash of bygone years, who can quote the classics and the Arabians, who is versed in the elegancies of Greek and Latin, who knows intimately the opinions which advancing science have made every one else forget or neglect. To know what Galen or Avicenna thought upon any given point has long ceased to be a primal necessity; but for centuries it constituted the stock-in-trade of the physician; even to this day it is supposed to give an increase of value to the physician's opinion; and but a few years ago, the Faculty of Paris insisted on a certain number of the aphorisms of Hippocrates being included in the theses of those who aspired to a diploma. Molière has embalmed the learned physician in imperishable humour; but the very public which cried with laughter at medical absurdities on the stage, listened with awe when they were gravely uttered in the sick-room.

Of the three types, the Physician as Priest, as Philosopher, and as Pedant, one knows not which can be selected as the most injurious; but not one of them is justified in flinging *many* stones at the Quack. In ignorance of the true knowledge required, they were all pretty nearly on a par. Still they must not on that ground alone be classed with the Quack; because they worked earnestly according to their lights. Once suppose that the wandering charlatan, who dosed the rustics at a fair as he would dose a horse, seriously *believed* that he knew the symptoms of a malady, and that his dose would cure it, and you have no more right to denounce him than to denounce the most learned physician. In our own day, however, one can hardly make such a suppo-

\* VAN HELMONT, *Opera Omnia*, p. 458.

† *Ternary of Paradoxes*. Translated by Walter Charleton, 1650, p. 67.



sition. Those quacks who placard our walls, and obtrude themselves in advertising columns, may not, and perhaps do not know how supremely ignorant they are; but they do know that they have not taken any of the accessible open paths which might have led them to better knowledge; they do know that they have never studied the structure and functions of the human body in health and disease, and that their theories are mere guesses in the dark, their remedies mere impostures. "Man," says Channing, "is not accountable for the *rightness*, but he is accountable for the *uprightness* of his views." The physician cannot be blamed for not having *found* the truth; but the quack must be stigmatised for not having *sought* it. The one says to the sick man: I *think* this will cure you; at any rate you shall have the best advice I can give. The other says: This will infallibly cure you, nothing else will.

The Physician, as we have said, is an enlightened empiric. From whence comes his enlightenment? From two very different sources: first, from the science of his day; secondly, from his own experience at the bedside. He is necessarily determined by theory in his interpretation of disease, since even the commonest words he uses, such as inflammation, dyspepsia, biliousness, &c., all imply theories as to the processes of organic action; and every remedy implies a theory as to its effect on the organism. Hence it is that the medical doctrines of the day always reflect the biological science of the day; and they are at one time biassed by chemical, another time by mechanical, and another by metaphysical views. While the practice is thus generally determined by the scientific theories which the physician has adopted from the schools, or originated for himself in deviation from the schools, it is also and more immediately determined by his own personal experience, and his skill in interpreting symptoms and devising

remedies. This is the physician's *art*. It cannot be taught, but it may be improved by teaching. The penetrating sagacity which at once, amid a crowd of details, detects those that are significant—the bold yet cautious invention which hits upon the mode of treatment suitable in the particular case—these are not qualities to be acquired in the schools: they make the great physician, as they make the great statesman and great general. Hence it is that you may often talk with a physician of high repute, of deserved repute, and find him very backward in the science of his day; but place him at the bedside in a perilous case, and there, where another man equipped with all the newest views in science—a master of the microscope, a great organic chemist, a brilliant experimenter—will be paralysed by hesitation, the skilful physician will be prompt, vigilant, and assured.

The art of Medicine, while it rests on the science of Biology, ought, as a study, to be strictly demarcated from it. Until such a separation takes place, progress in both will necessarily be slow. In our day a man may become an eminent astronomer without being able to recognise a single star in the heavens, much less to navigate the safest seas; and the perfection of both astronomy and navigation is due to this very division of labour. In like manner, when Biology comes to be studied without reference to medicine, and by a class of biologists whose time and energies will not be chiefly given to practice, there will be a decided acceleration of progress, and the medical practitioner will have his energies mainly given to the mastery of his art. No one even superficially acquainted with the demands made on a physician's energies, will think it reasonable that, over and above these, he should be called upon to master the gigantic and encyclopædic science of Biology: it is enough if he can keep pace with the advance of the day, and receive from others what new lights they have struck



out; but unless medical men do also devote themselves to Biology in the intervals of practice, who is to further the science, since no separate class of biologists has yet been established? In Germany and France, thanks to numerous professorships, there is a small class which devotes itself exclusively to science; but in England every discouragement exists to keep men from such "unprofitable" labour. When young, and awaiting a practice, men may give their days and nights to science, which would far better have been given to the laborious accumulation of clinical experience; but no sooner are patients knocking at the door, than science is either kicked aside, or, if the passion of discovery be strong, pursued, at a terrible cost of health and energy, in the rare intervals of rest.

Can we then wonder if our enlightened empiric is but imperfectly enlightened? Can we wonder if the wise physician, in the very sincerity of his wisdom, recognises the imperfection of his knowledge, and the purely tentative character of his art; and thus seems at a disadvantage when compared with the Quack, who has no such doubts, but who vociferously declares his art is perfect? Unhappily it is the tendency of the timorous to rely on confident assertion; and the sick man is more willing to trust one who emphatically declares that he will cure him, although this very declaration ought to act as a warning, than he is to trust a man who in all sincerity says, I will do my best to cure you.

And now, reader, for the moral; all these rambling remarks have had an aim; and that aim a practical one. You are mortal, and liable to all the ills that flesh is heir to. You are mortal, and, when ill, are timorous. You are mortal, and in your ignorance an easy dupe. Your ignorance respecting the mysteries of life and disease cannot be enlightened by a magazine article; but your ignorance of the danger

you run in distrusting physicians and relying on quacks may be enlightened. First, then, we hope to have made it clear that the Art of Medicine, over and above its own special difficulties, is rendered excessively uncertain because it *necessarily* rests upon the Science of Biology; and that Science is still in a chaotic condition. Next, we hope to have made it clear, that however imperfect the knowledge of the physician may be, it is *necessarily* of incalculably greater value than the knowledge of the quack, who, having never studied the organism in health and disease, is simply as ignorant as you are yourself. Thirdly, we hope to have made it clear that the physician relies *more* on experience and less on theory, the experience being much wider and more critical, the theory being less absolute and final, than is the case with the quack, who pretends to rely solely on experience, but does not rely on it at all. Finally, we hope to have made it clear that in the present state of human knowledge any man who announces that he has a panacea, or a system applicable to all, or most diseases—any man who announces that his drug, or his treatment, will in itself cure a disease, without regard to the variety of causes which may have produced the disease, or the organic changes which *the disease may have produced*—is either an ignoramus or an impostor, and his boast should act like a warning. His confidence is either crass ignorance, or artful reliance on your credulity. If you are ill, and distrust the medical aid of your town, or country, act courageously in that distrust, and leave the cure to Nature. But in no case withdraw your confidence from the *imperfect skill* of the physician, to place it on the *perfect ignorance* of the quack. The Medical Art of the day may be incompetent to restore the "digestive vigour" to your stomach which has "lost its tone;" but, oh! be not so misguided as to search for that "lost tone" in the advertisements. Are you so inex-



perienced as put your faith in "testimonials?" You will not even send to the library to borrow (much less buy) the book, which a page of advertised "opinions of the press" assures you is the most splendid work of the day, thrilling in incident, profound in thought, brilliant in style, *replete* with humour and pathos, and with every other quality which a book could have. You are deaf to these trumpets. You order a book of which none of these things are said—about which there is no flourish whatever. And you are wise. But why does this wisdom desert you when a Pill or a Lotion is placarded on the walls, or arrests

your attention in the advertising columns? Is it of more consequence that you should yawn over a trashy book, which you have seen praised as a *chef d'œuvre*, than that you should ruin your health because a charlatan praises his medications?

We conclude with an anecdote: A friend of ours, long a victim to dyspepsia, was earnestly recommended to try a "digestive powder" which promised to restore any amount of lost "vigour." The recommendation came from one who had great confidence in the powder, because he knew that *the advertiser made a very good living out of it.*

#### CAPTAIN CLUTTERBUCK'S CHAMPAGNE.

##### A WEST INDIAN REMINISCENCE.

##### CONCLUSION.—CHAPTER XV.

It is necessary now that we take note of Mr Chitty's movements. After descending from the mess-room, and after doing all that was in his heart as regarded the consumption and purloining of viands, Menelaus bethought him of that expression used by Tom Gervaise during dinner, which had unpleasantly affected his nerves, and which still, whenever he thought of it, caused an unaccountable misgiving. The fact was, that Nick's mind had been for some days much unsettled—indeed, since Brune's appearance at Crystal Mount. That appearance Nick conceived to bode no good to Christy's family arrangements; it was, moreover, associated with the pang arising out of a suspected understanding between Leander and Rosabella; so that, altogether, it excited a disagreeable foreboding, which various small incidents appreciable to Chitty's keen perception had augmented. Wine and feasting, as is generally the case in rancorous minds, far from dissipat-

ing, only intensified his apprehensions. He could extract no definite suspicion from the meagre evidence, and felt the need of counsel and confidence. How to get these was the question. To call Christy from the festive board to listen to a cock-and-bull story (as this would be, even when lavishly embellished with lies), would have no effect save to bring down anathemas on his head as an old idiot: to call on Melhado would bring blows in addition to abuse. In this dilemma he betook himself to a keener wit than either of theirs, and as soon as he could eat and drink no more, and had bestowed his movable plunder, he started off through the bush to Kingston, and stopped not till he arrived at the door of Melhado's house, where he craved an audience with that gentleman's mother.

The old lady was at that time seated on a rocking-chair in her saloon, which was lit by a number of wax-lights under brilliant